

OIPE

RAW SEQUENCE LISTING

DATE: 08/08/2001

PATENT APPLICATION: US/09/850,147

TIME: 07:56:57

Input Set : D:\Pa_00347.rpt

Output Set: N:\CRF3\08082001\I850147.raw

1 <110> APPLICANT: Andersen, Scott E.
2 Edgerton, Michael D
4 <120> TITLE OF INVENTION: Nucleic Acid Molecules And Other Molecules Associated With
5 Plants
6 <130> FILE REFERENCE: 38-21(51914)B
C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/850,147
C--> 9 <141> CURRENT FILING DATE: 2001-05-08
9 <150> PRIOR APPLICATION NUMBER: US 60/202,213
11 <151> PRIOR FILING DATE: 2000-05-08
13 <150> PRIOR APPLICATION NUMBER: US 09/654,617
14 <151> PRIOR FILING DATE: 2000-09-05
16 <150> PRIOR APPLICATION NUMBER: US 09/684,016
17 <151> PRIOR FILING DATE: 2000-10-10
19 <160> NUMBER OF SEQ ID NOS: 18014
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 402
23 <212> TYPE: DNA
24 <213> ORGANISM: Sorghum bicolor ✓
26 <223> OTHER INFORMATION: Clone ID: LIB3476-001-Q6-K1-A3 ✓
28 <400> SEQUENCE: 1
30 ccgggcccggg ctcaccagct ggcccagtgga aggccttaaag acatgtgcca ggagaagggg 60
32 ccttgaactt gtgtggtctg caccctaatt attgctcaga tgtggcaatg gagcttctat 120
34 attaagcttc gatgagaaga aggaaaggag atgtcaagggt cttcacagag accgaggaaa 180
36 acaaccagat tccagggcca agggccttgga atcccatatt tcctttgact tcaggtggac 240
38 aatttttagaa ggcaatatatt aaatctggaa ggggtaaaga acaatcagat ggtgttaatt 300
40 gtggagggttc agatcataat gccatctgat gcattccatt tctggtttct tttgaacaca 360
42 agtataaaaa accaacggga ggggcataac ttctgtgtt cc✓ 402
45 <210> SEQ ID NO: 2
46 <211> LENGTH: 151
47 <212> TYPE: DNA
48 <213> ORGANISM: Sorghum bicolor
50 <223> OTHER INFORMATION: Clone ID: LIB3476-001-Q6-K1-A5
52 <400> SEQUENCE: 2
54 ggcgaggctg ctgctaaggc aacacggcgt gctacgatgg ctggaccacc acgacaactt 60
56 catgccgttg ctgatcagga tcaacaacct ggagggcaga cttcatctac tccaccagga 120
58 ccgtgctgtt cctgcgcggc gacggcacgc t✓ 151
61 <210> SEQ ID NO: 3
62 <211> LENGTH: 106
63 <212> TYPE: DNA
64 <213> ORGANISM: Sorghum bicolor
66 <223> OTHER INFORMATION: Clone ID: LIB3476-001-Q6-K1-B3
68 <400> SEQUENCE: 3
70 ccgggtccgg acccaggcgt ccgcggactc gtgggtcctg aatgactttt ttctggtttt 60
72 gcgtgacgca tgcgaacaca tggcaatggc cgaatcacga attaga 106
75 <210> SEQ ID NO: 4
76 <211> LENGTH: 457
77 <212> TYPE: DNA

ENTERED

RAW SEQUENCE LISTING

DATE: 08/08/2001

PATENT APPLICATION: US/09/850,147

TIME: 07:56:57

Input Set : D:\Pa_00347.rpt

Output Set: N:\CRF3\08082001\I850147.raw

```

78 <213> ORGANISM: Sorghum bicolor
80 <220> FEATURE:
81 <221> NAME/KEY: unsure
82 <222> LOCATION: (1)..(457)
83 <223> OTHER INFORMATION: unsure at all n locations ok
84 <223> OTHER INFORMATION: Clone ID: LIB3476-001-Q6-K1-D11
86 <400> SEQUENCE: 4
88 gggggagggg cggcgtacaa ccctaacaca gacgcctgca acccgtgcgc cgccgctgac 60
90 cagagatctg gtgcgcgcgc accgcgcgc caccgcgcgc cgtccaaaaa agctcggatt 120
92 gccccctgc ggcctgccc ccgcgtccc tggaggagg atcgaccgag gccctgaccg 180
94 gctgaggcc tccgtcacct ctgctgcgc ccgcgcggg ctgcgcctg ccagatcgag 240
96 aacatctcct gcgtcaatcg agggcacgac ttcattcact gaccgcctcg caggggagca 300
98 gctcgacctc cgacgtcccc atacggcctc gtcaggccag ctccgtgcag cagatagctg 360
W--> 100 cgatgcaagt aggacnagct gcatgaggct tatcggnag agcttgccgc cagagaccag 420
W--> 102 ggccatcggc cccacatgga ggcacatcan aagcaca 457
105 <210> SEQ ID NO: 5
106 <211> LENGTH: 277
107 <212> TYPE: DNA
108 <213> ORGANISM: Sorghum bicolor
110 <220> FEATURE:
111 <221> NAME/KEY: unsure
112 <222> LOCATION: (1)..(277) ok
113 <223> OTHER INFORMATION: unsure at all n locations ok
114 <223> OTHER INFORMATION: Clone ID: LIB3476-001-Q6-K1-F12
116 <400> SEQUENCE: 5
118 cgtccgaatt cccggtcgac cagcgtccgt tcaccaccgc tcccgggctg gggatggcgc 60
120 gtgcctggcc tgcgcgcgc ccgcgcgcgc gtcgcctggg cgctgctcg cccggacagc 120
122 ccagcacctc gtctgcgcg gcgacaccga cagcgcgcgc gcgtcgtgc agcgccttcg 180
W--> 124 tggccccggg ggggggaggg accngagct caaggacatc ttccgagccg aggaggacgc 240
126 ccggcggaac aaccagggaa cgtacgagag gatggtg 277
129 <210> SEQ ID NO: 6
130 <211> LENGTH: 261
131 <212> TYPE: DNA
132 <213> ORGANISM: Sorghum bicolor
134 <223> OTHER INFORMATION: Clone ID: LIB3476-001-Q6-K1-F4
136 <400> SEQUENCE: 6
138 gtcgcattc ctggtgcgc ccgcgtccgt aaagtcgatt atgtaccga tctctttaac 60
140 atgttatcaa tggatggaac aacagagaaa gagtcagagt catcttcaaa tgatgataat 120
142 gcctgggatg gattccagtc tgcacaacca gtacctagct cagagaaaaa agattctgcc 180
144 aaaccggcag aacgcaagac ccgggggggg gggcgcaata caagacctat ctggagactc 240
146 accatctctc tcaatctct c 261
149 <210> SEQ ID NO: 7
150 <211> LENGTH: 311
151 <212> TYPE: DNA
152 <213> ORGANISM: Sorghum bicolor
154 <223> OTHER INFORMATION: Clone ID: LIB3476-001-Q6-K1-G1
156 <400> SEQUENCE: 7
158 gggcgaccac gcgtgcgagc attatcagat tcttcgtctg catttggtgg gagattatta 60
160 ggagtaggag taggattact acgttattat tactagttag tgagttagtg agtgatcgag 120

```

RAW SEQUENCE LISTING

DATE: 08/08/2001

PATENT APPLICATION: US/09/850,147

TIME: 07:56:57

Input Set : D:\Pa_00347.rpt

Output Set: N:\CRF3\08082001\I850147.raw

```

162 cgaggatgct ggcgggtgttc aacggcggtg tgggtggaggt gccggcgagg ctggtggcgg 180
164 tgggaagccg gacgccgtcg cccaagacca ggcggtacga gctcgtcggc cggttcctgg 240
166 gtgcctccga gccggccgtc ttcgtgcaga ttggcgacct cggccacctc gcttactacc 300
168 acaacaacca g 311
171 <210> SEQ ID NO: 8
172 <211> LENGTH: 302
173 <212> TYPE: DNA
174 <213> ORGANISM: Sorghum bicolor
176 <220> FEATURE:
177 <221> NAME/KEY: unsure
178 <222> LOCATION: (1)..(302)
179 <223> OTHER INFORMATION: unsure at all n locations
180 <223> OTHER INFORMATION: Clone ID: LIB3476-001-Q6-K1-G3
182 <400> SEQUENCE: 8
W--> 184 cgtccgnatt cccgggtcgcc ccgcgtccgc tccctacctg tcccggctcc agcacttgca 60
186 tcccccccg cgcggcggtcg ccggagcgga gcagagcagc cggagggccc gtcggatccg 120
188 ccgccgcaaa gatgaatgac accgatgtag ccaagcagat ccagcagatg gtgcggttca 180
190 tccgccagga ggccgacgag aaggccaacg acatctctgt gtatgccgag gaggaattct 240
192 acattgagaa gttgcatttt gttgaatctg ataaaaagaa gatcaggcat gattatgaac 300
194 gc 302
197 <210> SEQ ID NO: 9
198 <211> LENGTH: 157
199 <212> TYPE: DNA
200 <213> ORGANISM: Sorghum bicolor
202 <223> OTHER INFORMATION: Clone ID: LIB3476-001-Q6-K1-G4
204 <400> SEQUENCE: 9
206 gaacacttgg aaatatccgc ctagttgggg agctactcaa gcaaaaatgg ttcctgagaa 60
208 gatagttcat cacattgtta tggagctatt gcggtctcgg cctgataaga agccatgccc 120
210 tgaagaggaa gatggtgagg ctatctgaca ttccttc 157
213 <210> SEQ ID NO: 10
214 <211> LENGTH: 385
215 <212> TYPE: DNA
216 <213> ORGANISM: Sorghum bicolor
218 <223> OTHER INFORMATION: Clone ID: LIB3476-001-Q6-K2-A3
220 <400> SEQUENCE: 10
222 cagctgggcc aggaaggctt aaagtacatg ttccaggaga agggccttgg aactgggtgg 60
224 tctgcacctt attattgcta cagatgtggc aatgtagctt ctatattaag cttcgatgag 120
226 aagatggaaa gagatgtcaa gttcttcaca gagaccgagg agaacaacca gatgcgaggc 180
228 ccaaggactg cagtcccata tttcctctga cttcagttgt acaattttag aagtcaatat 240
230 ttaaactctg aagggttaaa gatcaatcag atgtgtttat tgttgtaggt tcagatcata 300
232 gtgcaagctg atgcattcga tttctgtttt cttttgacca catgtacaat agaccatcgg 360
234 gagtgtcata ttttctgtta ttcct 385
237 <210> SEQ ID NO: 11
238 <211> LENGTH: 269
239 <212> TYPE: DNA
240 <213> ORGANISM: Sorghum bicolor
242 <220> FEATURE:
243 <221> NAME/KEY: unsure
244 <222> LOCATION: (1)..(269)

```

RAW SEQUENCE LISTING

DATE: 08/08/2001

PATENT APPLICATION: US/09/850,147

TIME: 07:56:57

Input Set : D:\Pa_00347.rpt

Output Set: N:\CRF3\08082001\I850147.raw

```

245 <223> OTHER INFORMATION: unsure at all n locations
246 <223> OTHER INFORMATION: Clone ID: LIB3476-001-Q6-K2-C2
248 <400> SEQUENCE: 11
W--> 250 cctgcctacc gtccgcatcc cggctcgccac gcgtccgcgc taccactcgc cgagcggaac 60
252 ggaattngtt agagagcgga agcggcgccg accaccaga ccattcatat attggcgacg 120
254 ccggaggcca atgatggcac ggacgctgct accgctgtgg ggggggccga gccgccgcta 180
256 cctagactgc accttcacag gccttctcac cggctgaaag actgaagtat gctaacacta 240
258 agatggctga ggcgagggtg atcgcaaca 269 ✓
261 <210> SEQ ID NO: 12
262 <211> LENGTH: 475
263 <212> TYPE: DNA
264 <213> ORGANISM: Sorghum bicolor
266 <220> FEATURE:
267 <221> NAME/KEY: unsure
268 <222> LOCATION: (1)..(475) ✓
269 <223> OTHER INFORMATION: unsure at all n locations ✓
270 <223> OTHER INFORMATION: Clone ID: LIB3476-001-Q6-K2-C5 ✓
272 <400> SEQUENCE: 12
274 cggacgcgtg ggcaagcccc gccgcagaac ccaagcccca actccacgat gaggccgtcg 60
276 ctgctgagat ccacgtccca gctcctccgc cgccggagct actcctccgc atccgggcag 120
278 cctgagcgga aggtggccat cctcgcgcg gcgggcggca tcgggcagcc gctgtcgctg 180
280 ctcatgaagc tcaaccact cgtctcgctg ctctcgctct acgatattgc cggcaccoca 240
282 ggtgtcgcg cgcacgtctc ccacatcaac tcccccgccc tgggtgaagg cttcatggga 300
284 gaggaacagc ttggggaagc gctagagggc tccgacgtgg taatcatccc ggctggcggtg 360
W--> 286 ccgaggaagc ccggcatgac cagngacgac ctcttcaata tcaacgctgg catcggttaag 420
288 aacctcagcg ccgccatcgc caagtactgg cccaatgcc ttggcaacat gatca 475 ✓
291 <210> SEQ ID NO: 13
292 <211> LENGTH: 572
293 <212> TYPE: DNA
294 <213> ORGANISM: Sorghum bicolor
296 <223> OTHER INFORMATION: Clone ID: LIB3476-001-Q6-K2-E1
298 <400> SEQUENCE: 13
300 aagatcctag ataaggaaaa agtctctcagg cacaagatgg tcgagcagat taagcgggaa 60
302 atttcgacca tgaagttgat taagcatcct aatgttggtc gcatatatga ggtgatggga 120
304 agtaaaacaa agatctacat tgtgttgag tatgttactg gtggcgagct ttttgacaca 180
306 attgctaacc atggtcgaat gaggaagat gaggaagga gatacttcca acagttaatc 240
308 aatgcagttg attattgtca tagcaggggt gtgtaccacc gggatttaa accagagaat 300
310 ttactgcttg actcatatgg aaatctgaag gtctctgact ttggactgag tgcgctctct 360
312 cagcaaatca aggatgatgg attgctgcat acaacttggt ggactccaaa ctacgttgca 420
314 ccagagggtc tagaagacca aggctatgat ggtgcaatgg ctgatttggt gtcattgtga 480
316 gttatcctgt ttgttctgct agctgggtat ttaccttttg aggactctaa tcttatgacg 540
318 ctgtataaga aatatcgaat gcagaatata ca 572
321 <210> SEQ ID NO: 14
322 <211> LENGTH: 188
323 <212> TYPE: DNA
324 <213> ORGANISM: Sorghum bicolor
326 <220> FEATURE:
327 <221> NAME/KEY: unsure
328 <222> LOCATION: (1)..(188)

```

RAW SEQUENCE LISTING

DATE: 08/08/2001

PATENT APPLICATION: US/09/850,147

TIME: 07:56:57

Input Set : D:\Pa_00347.rpt

Output Set: N:\CRF3\08082001\I850147.raw

```

329 <223> OTHER INFORMATION: unsure at all n locations
330 <223> OTHER INFORMATION: Clone ID: LIB3476-001-Q6-K2-G2
332 <400> SEQUENCE: 14
334 gtccattcc ggtccccttg agatggcat gatggcagt aatgtgatg cctggcttat 60
336 tagatgcact cgtgagcaca atgtgcagcc cattactgct tgactctttt ggtatggctg 120
W--> 338 agaccttatg ctcaaatct tgcantttg ctggggacct atgacatccg agattagtcc 180
340 ttttgagg 188 ✓
343 <210> SEQ ID NO: 15
344 <211> LENGTH: 303
345 <212> TYPE: DNA
346 <213> ORGANISM: Sorghum bicolor
348 <220> FEATURE:
349 <221> NAME/KEY: unsure
350 <222> LOCATION: (1)..(303)
351 <223> OTHER INFORMATION: unsure at all n locations
352 <223> OTHER INFORMATION: Clone ID: LIB3476-001-Q6-K2-H8
354 <400> SEQUENCE: 15
356 agcgtccgta cagctgcaaa attctgatcg accgttttcc gactttaccc cccccccccc 60
358 cgcccttcac cgtcgggaatc caccgcgacg cgcgcgcgg gagatggcca cggccgcgcg 120
360 gagccgcct acggctccgc cgtcggctgc ggcgggagat gtctccgagg tggagctctc 180
W--> 362 ggaggggggg gggccggacc tcggcagccg gaggcgggg agcgggagcg ggggcagcgg 240
W--> 364 ccggagcgcg gcggagtact ccgggtgggt gtaccacctc ngngngaact ccatnnnnca 300
366 cga 303 ✓
369 <210> SEQ ID NO: 16
370 <211> LENGTH: 129
371 <212> TYPE: DNA
372 <213> ORGANISM: Sorghum bicolor
374 <223> OTHER INFORMATION: Clone ID: LIB3476-002-Q6-K1-B5
376 <400> SEQUENCE: 16
378 aatcccggt cgcccagcgt acgcacttct attgagagac atacggtggg ggggggcatg 60
380 caactgaatc tgacatgaca gaagctgcca ggatctcaga atgccatca ctccatcagc 120
382 agcctgcct 129
385 <210> SEQ ID NO: 17
386 <211> LENGTH: 544
387 <212> TYPE: DNA
388 <213> ORGANISM: Sorghum bicolor
390 <223> OTHER INFORMATION: Clone ID: LIB3476-002-Q6-K1-B6
392 <400> SEQUENCE: 17
394 gtcgaccacg cgtccgcca cgcgtccgat ttgattttat tgatggatat gttaagcctg 60
396 ttgtagggag aaagattaac tggatgaagg cagggatcat tgagagtgat ctggttctaa 120
398 cagttagtcc acattatgta aaagaactca cttctggccc agaaaaagg gttgagttgg 180
400 atggtgtcct tcgcacaaag cctcttgaaa ctggaattgt aaatggcatg gatgtttatg 240
402 aatgggatcc tgcaactgat aagcacatca gtgtgaaata tgatgcaaca acggcacctg 300
404 aagcaagacc tctcaataaa gaaagattgc aagctgaagt tggattgcct gtggactcga 360
406 gcatccccgt tataatTTTT gttggccgct ttgaagaaca gaaaggatct gacatactca 420
408 ttgcagccat tccagaattt gtgggcgaga atgttcagat aattgctctt ggcacaggaa 480
410 agaagaagat ggaggaggaa tcgactcacc tggaagtga atatcccaac aatgctagag 540
412 gcat 544
415 <210> SEQ ID NO: 18

```

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/850,147

DATE: 08/08/2001

TIME: 07:56:58

Input Set : D:\Pa_00347.rpt

Output Set: N:\CRF3\08082001\I850147.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:100 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:102 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:124 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:252 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:286 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:338 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:362 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:364 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:442 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:468 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:494 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:564 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:572 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:600 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:670 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29
L:672 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29
L:716 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:762 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
L:764 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
L:842 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37
L:862 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38
L:868 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38
L:870 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38
L:958 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42
L:960 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42
L:990 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43
L:1020 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45
L:1022 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45
L:1024 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45
L:1026 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45
L:1028 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45
L:1064 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47
L:1066 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47
L:1114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49
L:1324 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58
L:1552 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:70
L:1604 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72
L:1636 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:74
L:1718 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:77
L:1720 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:77
L:1804 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81
L:1826 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:82
L:1878 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84
L:1880 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84
L:2088 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:94

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/850,147

DATE: 08/08/2001

TIME: 07:56:58

Input Set : D:\Pa_00347.rpt

Output Set: N:\CRF3\08082001\I850147.raw

L:2196 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:99
L:2200 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:99
L:2228 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:100
L:2296 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103